



DIVISION OF OIL. GAS & MINING

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June 23, 1986

U.S. Department of the Interior Bureau of Land Management Moab District Grand Resource Area P.O. Box M Moab, Utah 84532

Attention: Colin P. Christensen, Area Manager

Dear Mr. Christensen:

This is in response to your letter of May 23, 1986 granting approval of Kelmine Corporation's plan of operation. The stipulations outlined are addressed numerically:

- This is outlined in the Plan of Operation on page 84.
- The caustic (CaO) and process chemicals stored and used in the ore pretreatment area that are subject to spillage into the emergency spill containment pond would initially be contained and controlled within this area. If the chemicals are spilled individually, their respective storage container would be repaired and the chemical returned to it. If all or any two of the chemicals were spilled together, they would be pumped to the leach piles and added to the process. Should any combination of chemicals be released into the spill containment pond, again the containers would be repaired and the chemicals pumped to the leach piles and returned to process. Any residue left on the pond liner would be picked up and deposited on the leach piles with the chemicals being returned to process. The storage of chemicals in the spill containment ponds should not exceed 60 days.

In case of an acid spill involving both the acid storage tank and the acid mix tank a total of 10,152 gallons of 93% H2SO4 weighing 152,280 lbs. plus 9,600 gallons of acid at .4 gm/liter H₂SO₄ concentration containing 31.7 lbs. of free acid could be released. Due to the difficulty of storing large quantities of pebble lime (CaO) used for making up the milk of lime solution for the neutralization process, 90% active limestone will be stored on site. Using the neutralization formula:

 $H_2SO_4 + CaCO_3$

 $CaSO_4 + H_2O + CO_2$